

IN THE DRAWINGS

Applicant respectfully requests permission to amend the drawings as indicated in red on the copy of the drawings attached hereto. Specifically, Applicant requests the following changes to the figures:

In Fig. 5, along the arrow between box S22 and box S23, change the legend "YES" to "NO", and along the arrow between box S22 and box S24, change the legend "NO" to "YES".

Attachment: Annotated Sheet

REMARKS

Reconsideration and allowance of this application are respectfully requested. Claims 4-5 are cancelled, and claims 6-10 are added. Claims 1-3 remain in this application as amended herein. Accordingly, claims 1-3 and 6-10 are submitted for the Examiner's reconsideration.

The Applicant expresses appreciation to the Examiner for the telephone interview held with Applicant's attorney on February 27, 2006 in which the claims as amended in the present Amendment and the arguments set out in the present Amendment were discussed and in which the Examiner indicated that he believed that the amended claims are distinguishable over the art or record.

The specification has been amended to correct an error in the location of the heading "SUMMARY OF THE INVENTION". No new matter is added by these changes.

Fig. 5 has been amended to conform with the disclosure as set out, e.g., on page 24, line 18 to page 25, line 11 of the specification. No new matter has been added by these changes.

Claims 1-3 have been amended solely to place the application in condition for allowance. It is therefore submitted that the present amended should be entered.

In the Office Action, claims 1-3 were rejected under 35 U.S.C. § 112, second paragraph. Claims 1 and 3 have been amended to correct the informalities. It is therefore submitted that claims 1 and 3 are in full compliance with the requirements of 35 U.S.C. § 112, second paragraph.

Turning now to the art rejections, claims 1-3 were rejected under 35 U.S.C. § 102(e) as being anticipated by Kurth (U.S. Patent No. 6,880,028), claims 1-3 were rejected under 35 U.S.C. § 102(b) as being anticipated by Nunziata (U.S. Patent No. 5,572,686), and claims 1 and 3 were rejected under 35 U.S.C. § 102(b) as being anticipated by Hewitt (U.S. Patent

No. 5,956,493). Applicant submits that the claims are patentably distinguishable over the cited references.

The Kurth patent describes an agent that sends a priority request for accessing a resource to an arbiter and then runs a timer for a predetermined time period. If the request is not granted before the timer expires, the agent increases the priority level of the request. (See Figs. 1, 2 and 6; Col. 2, lns. 39-41 and 65-67; col. 3, lns. 25-28; and col. 5, lns. 19-24). The timer only provides an indication of whether or not a *predetermined time period* from when the request was sent *has elapsed*. Kurth does not disclose or suggest *measuring a time interval* from when the request is received by the arbiter. Further, Kurth does not disclose or suggest *comparing the measured time interval to a predetermined value*, does not disclose or suggest comparing the measured time interval to each of a *first predetermined value and a second predetermined value* and does not disclose or suggest assigning a higher priority *based on a result of the comparing*.

The Nunziata patent shows, in Figs. 1 and 2, an arbiter that includes two counters that act as *count-down timers*. When a master having a given priority issues a request for a bus, a first counter is activated. If the first counter expires before the bus is granted to the master, the master is assigned a higher priority and a second counter is activated to limit the length of time that the master stays at the higher priority. When the second counter expires, the master is returned to its original priority. (See also Col. 3, lns. 49-67; and Col. 4, ln. 50 - Col. 5, ln. 19). Nunziata therefore describes using the counter to *count down and determine whether or not a preset interval has elapsed* and does not disclose or suggest *measuring a time interval from when a signal is received*. Nunziata also describes two counters that are associated with one master and does not disclose or suggest a

first signal for requesting bus acquisition for one master and a second signal for requesting bus acquisition for another master. Further, Nunziata does not disclose or suggest comparing a measured first time interval to each of a first predetermined value and a second predetermined value, does not disclose or suggest comparing a second time interval to each of a first predetermined value and a second value, and does not disclose or suggest assigning a higher priority of bus acquisition based on a result of the comparing.

The Hewitt patent describes a bus arbiter that detects the bus request signals generated by plural bus masters and which includes a set of counters each of which measures the elapsed time from when an associated master has requested ownership of the bus. Priorities are assigned to each master according to the order of the values held in their associated counters such that the master whose associated counter has the lowest value is assigned the highest priority. (See Fig. 3A; Col. 2, lns. 19-47; and Col. 4, lns. 31-38 and 54-67). The arbitration control unit therefore assigns a priority to each master based on how close its count value is to zero. Hewitt therefore does not disclose or suggest comparing a measured time interval to each of a predetermined value and a second predetermined value and does not disclose or suggest assigning a higher priority based on a result of the comparing.

It follows that neither Kurth, Nunziata, nor Hewitt discloses or suggests:

comparison means for comparing the measured first time interval to each of a first predetermined value and a second predetermined value and for comparing the measured second time interval to each of the first predetermined value and the second predetermined value, the second predetermined value being greater than the first predetermined value;

priority assignment means for assigning a higher priority of bus acquisition to the given one of the plurality of modules or to the another one of the

plurality of modules based on a result of the comparing carried out by said comparison means as called for in claim 1.

Neither Kurth, Nunziata, nor Hewitt discloses or suggests the combination recited in claim 1, and therefore neither Kurth, Nunziata, nor Hewitt anticipates the claim.

Claim 2 depends from claim 1 and is therefore distinguishable over the cited art for at least the same reasons.

Independent claim 3 calls for:

comparing the measured first time interval to each of a first predetermined value and a second predetermined value and comparing the measured second time interval to each of the first predetermined value and the second predetermined value, the second predetermined value being greater than the first predetermined value;

assigning higher priority of bus acquisition to the given one of the plurality of modules or to the another one of the plurality of modules based on a result of said comparing [.]

Neither Kurth, Nunziata, nor Hewitt anticipates claim 3 for at least the reasons set out above regarding claim 1.

The Examiner also rejected claim 2 under 35 U.S.C. § 103(a) as being unpatentable over Hewitt in view of Tran (U.S. Patent No. 5,519,837). It is submitted that the claim is patentably distinguishable over the cited references.

Claim 2 depends from claim 1 and is therefore distinguishable over Hewitt for at least the same reasons.

The Tran patent describes arbitrating the use of a shared resource through priority concepts, round-robin concepts, or round-robin concepts as modified by priority concepts. (See Col. 3, lns. 31-34). Tran does not address the deficiencies of Hewitt.

Accordingly, the withdrawal of the rejections under 35 U.S.C. § 102 and § 103 are respectfully requested.

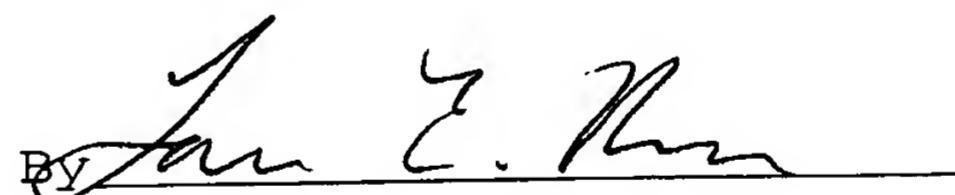
New claims 6 and 7 depend from claim 1, and new claims 8-10 depend from claim 3. Each of new claims 6-10 is therefore distinguishable over the cited art for at least the same reasons. Support for new claims 6-10 is found, e.g., in Figs. 7 and 9 and on page 27, ln. 19 to page 34, ln. 16 and page 39, lns. 4-31 of the specification.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue. If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that the Examiner telephone applicant's attorney at (908) 654-5000 in order to overcome any additional objections which the Examiner might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

Dated: March 8, 2006

Respectfully submitted,


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**ANNOTATED SHEET
SHOWING CHANGES**

FIG. 5

